

## **REMARKS**

This responds to the Office Action mailed November 29, 2006.

### **Telephone Interview**

The Examiner is thanked for discussing the outstanding rejection with Applicant's representative (Blake Dorr) on Feb. 7, 2007. Specifically, Applicant's representative submitted a proposed amendment for discussion. The Examiner acknowledged that the present application described a different structure than that which is disclosed in the present application, and suggested that Applicant amend the claims to more clearly define over Chen.

Regarding claim 1, the Examiner did not like the "notch" term, indicating that he believed FIG. 9 of Chen shows an opening 70 on the bottom that could be considered a notch. The Examiner, therefore, suggested the term "stepped portion" as an alternative. The Examiner also suggested not removing the [heating area] "is defined by the conductive layer and the heating layer" language from the claim.

### **Response to Rejections**

In short, Applicant has amended the claims to incorporate the Examiner's suggestion of a "stepped portion," in order to clearly distinguish over the cited Chen reference. Specifically, Applicant has amended claims 1, 11, 16, and 19 to include the feature of "the conductive layer comprises a stepped portion used as a heating area." This feature is illustrated in Fig. 3C, and described in the corresponding portion of the specification. Accordingly, the amendment adds no new matter to the application.

Claims 1, 11, 15, 16, 18, and 19 stand rejected under 35 U.S.C. 102(e) as allegedly anticipated by Chen et al (US 6,886,925). Applicant respectfully requests withdrawal of the rejections for at least the reasons discussed below.

Amended claim 1 recites:

1. A method for manufacturing an inkjet printhead comprising:  
providing a substrate and a porous material;  
forming a heating layer on the substrate;  
forming a conductive layer on the substrate, **wherein the conductive layer conducts a current to the heating layer, and comprises a stepped portion used as a heating area, wherein the heating area is defined by the conductive layer and the heating layer;**  
forming a chamber for storing liquid above the heating area, wherein the chamber includes a first side and a second side, the first side is overlapped with the heating area, the second side is connected to the first side, and the chamber is formed with an exit, from which the liquid is dispensed, on the second side; and  
placing the porous material on the chamber so that the liquid flows into the chamber therethrough.

Amended claim 11 recites:

11. An inkjet printhead comprising:  
a substrate;  
a heating layer disposed on the substrate to dispense liquid;  
a conductive layer disposed on the substrate to conduct a current to the heating layer, **wherein the conductive layer comprises a stepped portion used as a heating area, wherein the heating area is defined by the conductive layer and the heating layer;**  
a chamber, disposed on the heating area, having a first side and a second side, wherein the first side is overlapped with the heating area, the second side is connected to the first side, and the chamber is formed with an exit, from which the liquid is dispensed, on the second side; and  
a porous material disposed on the substrate, wherein the liquid flows into the chamber through the porous material.

Amended claim 16 recites:

16. A method for manufacturing an inkjet printhead comprising:  
providing a substrate, a porous material, and a nozzle plate;

forming a heating layer on the substrate;  
forming a conductive layer on the substrate, **wherein the conductive layer conducts a current to the heating layer, and comprises a stepped portion used as a heating area, wherein the heating area is defined by the conductive layer and the heating layer,**  
forming an adhesive layer on the conductive layer;  
placing the porous material on the adhesive layer to form a chamber for storing liquid, wherein the liquid flows into the chamber through the porous material, the chamber includes a first side and a second side, the first side is overlapped with the heating area so that the liquid in the chamber is located above the heating area, and the second side is connected to the first side; and  
adhering the nozzle plate to the second side of the chamber, wherein the nozzle plate includes at least one orifice.

Amended claim 19 recites:

19. An inkjet printhead comprising:  
a substrate;  
a heating layer disposed on the substrate to dispense liquid;  
a conductive layer disposed to conduct a current to the heating layer, **wherein the conductive layer comprises a stepped portion used as a heating area, wherein the heating area is defined by the conductive layer and the heating layer,**  
an adhesive layer disposed on the conductive layer;  
a porous material, disposed on the substrate, including a chamber, wherein the liquid flows to the chamber through the porous material, the chamber has a first side and a second side, the first side is overlapped with the heating area so that the liquid in the chamber is located above the heating area, and the second side is connected to the first side; and  
a nozzle plate, disposed on the second side of the chamber, including at least one orifice.

(*Emphasis added.*) Applicant submits that each of the independent claims 1, 11, 16, and 19 patently defines over Chen for at least the reason that Chen fails to disclose the feature emphasized above.

In this regard, Chen et al discloses a porous back-shooting inkjet print head module and method for manufacturing the same. The porous back-shooting inkjet print head module comprises a substrate 10, a heating layer 30, a conductor layer 40, an ink

chamber 91, and an ink supply layer 90. As shown in the drawing of the office action, the examiner stated that Chen et al. discloses a first side overlapping the heating area. However, Chen et al. does not disclose that the conductive layer comprises a stepped portion used as a heating area.

Chen et al does not teach that the conductive layer comprises a stepped portion used as a heating area. For at least this reason, independent claims 1, 11, 16, and 19 patently define over the cited art.

As all remaining claims depend from claim 1, 11, 16, and 19, the remaining claims patently define over the cited art for at least the same reasons.

#### **103(c) Statement**

The present application and U.S. Patent 6,886,925 (Chen et al) were, at the time the invention of Application 10/795,878 was made, commonly owned by Industrial Technology Research Institute, Hsinchu, Taiwan. Therefore, Applicant submits that Chen should not be used as a reference under 35 U.S.C 103(c). However, Applicant need not rely on this statement, based on the substantive distinctions set forth above.

Should the Examiner believe that a teleconference would be helpful to expedite the examination of this application, the Examiner is invited to contact the undersigned.

A credit card authorization is provided to cover the fee associated with the accompanying RCE application. No additional fee is believed to be due in connection with this amendment and response. If, however, any additional fee is deemed to be payable, you are hereby authorized to charge any such fee to Deposit Account No. 20-0778.

Respectfully submitted,

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